# Investor Attention in Opaque Muni Markets

Municipal Finance Data Forum
Washington, DC
April 24, 2019

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Overview of empirical results

- Muni investors respond slowly to value-relevant information.

- Muni investors rely on credit ratings for information.

- Muni bond insurance loses value after financial crisis.

- Credit ratings (imperfect) substitute for (lost) AAA insurance.

- Municipal rating analysts spread thin; ratings correlate with fees.

- Municipal ratings less subject to conflicts of interest.

- Municipal ratings more accurate historically than other asset classes.

- Municipal ratings subject to analyst home bias.

# Muni investors respond slowly to value-relevant information.

Panel A: Cumulative Stock Return
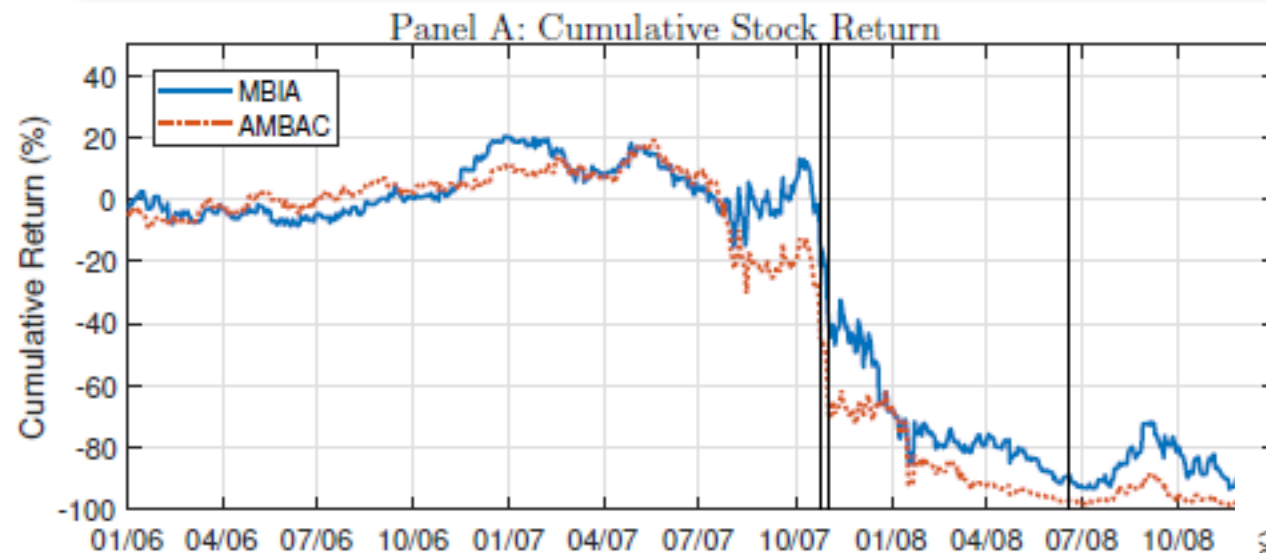
- December 2007: MBIA DD=1.10 implies PD ~ 9%. Moody's corporate bond PD table suggests Caa2; 17 notches lower than affirmed Aaa.

- June 2008: Moody's downgrades to A2.

- June 2009: Moody's downgrades to Ba3.

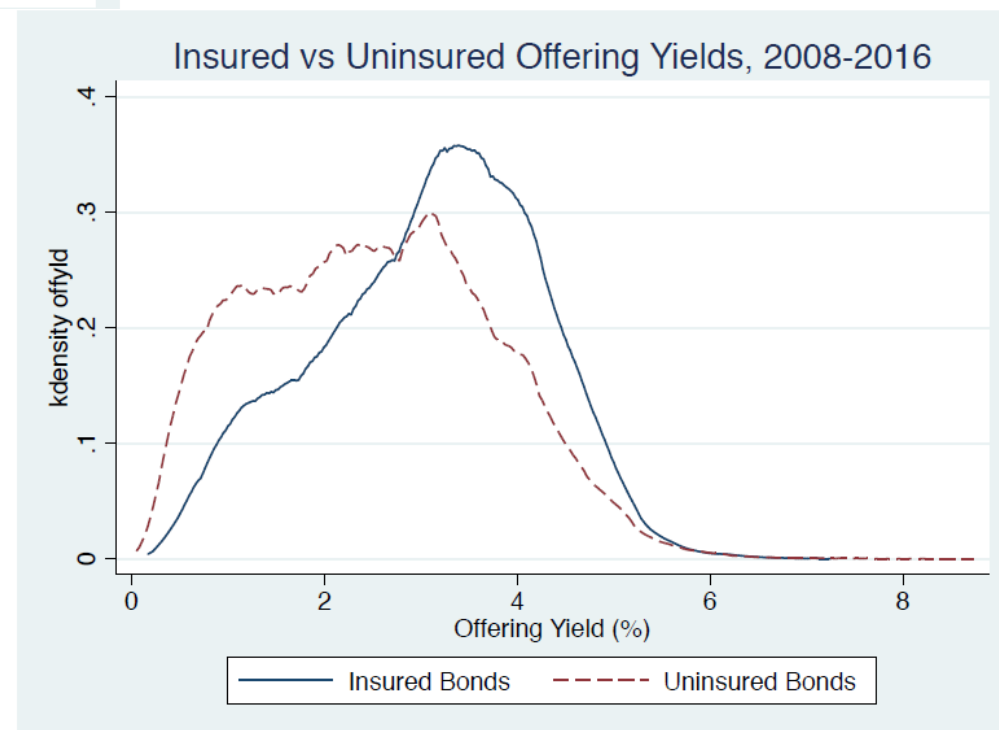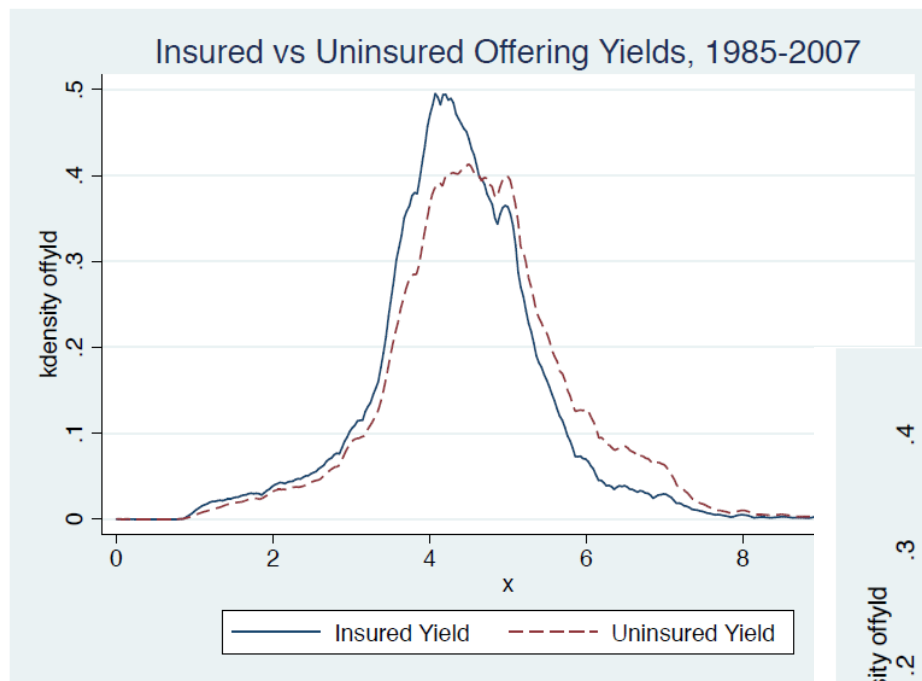**Figure 3:** Time series of cumulative bond returns 2006-2009

Muni investors rely on credit ratings for information.

- Moody's 2010 scale recalibration overcomes endogeneity problems to identify a causal impact of ratings on bond prices.

- Cumulative Abnormal Returns (CARs) reveal investor reliance on ratings in secondary markets.
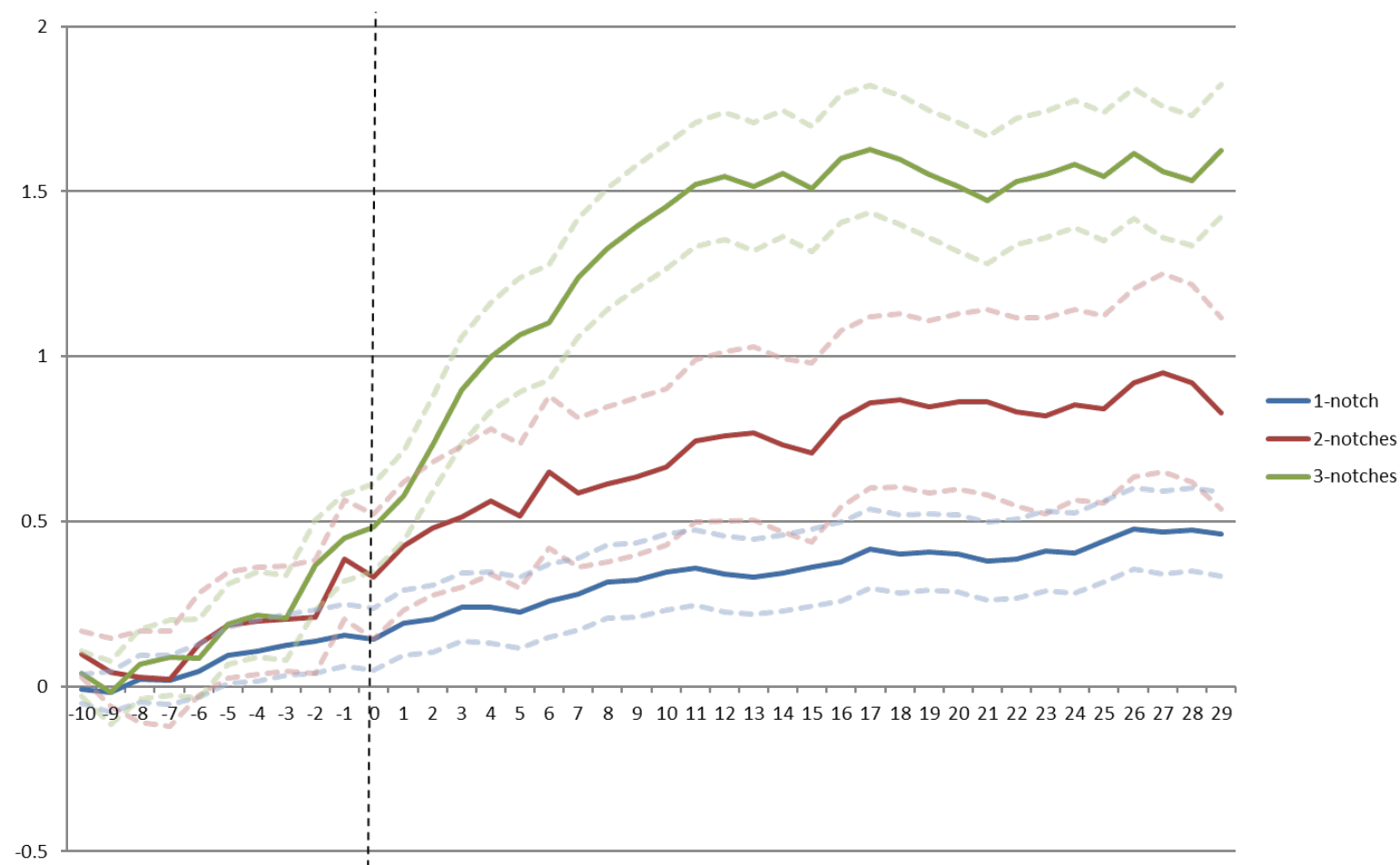
Muni bond insurance loses value after financial crisis.

- Comprehensive data: 400,000 issues over 30 years with data on issuers, insurers, issue characteristics including the time series of changes in underlying credit quality.

- Selection models control for fundamentals and the endogenous choice to insure.

Insured vs Uninsured Offering Yields, 1985-2007

Insured vs Uninsured Offering Yields, 2008-2016

Credit ratings (imperfect) substitute for (lost) AAA insurance.

- High credit quality issuers don't need to buy credit enhancement, nor do they need to compensate rating agencies for higher ratings.

- Issuers who lose the ability to insure are more likely to compensate rating agencies.

Fraction of new issues that are insured
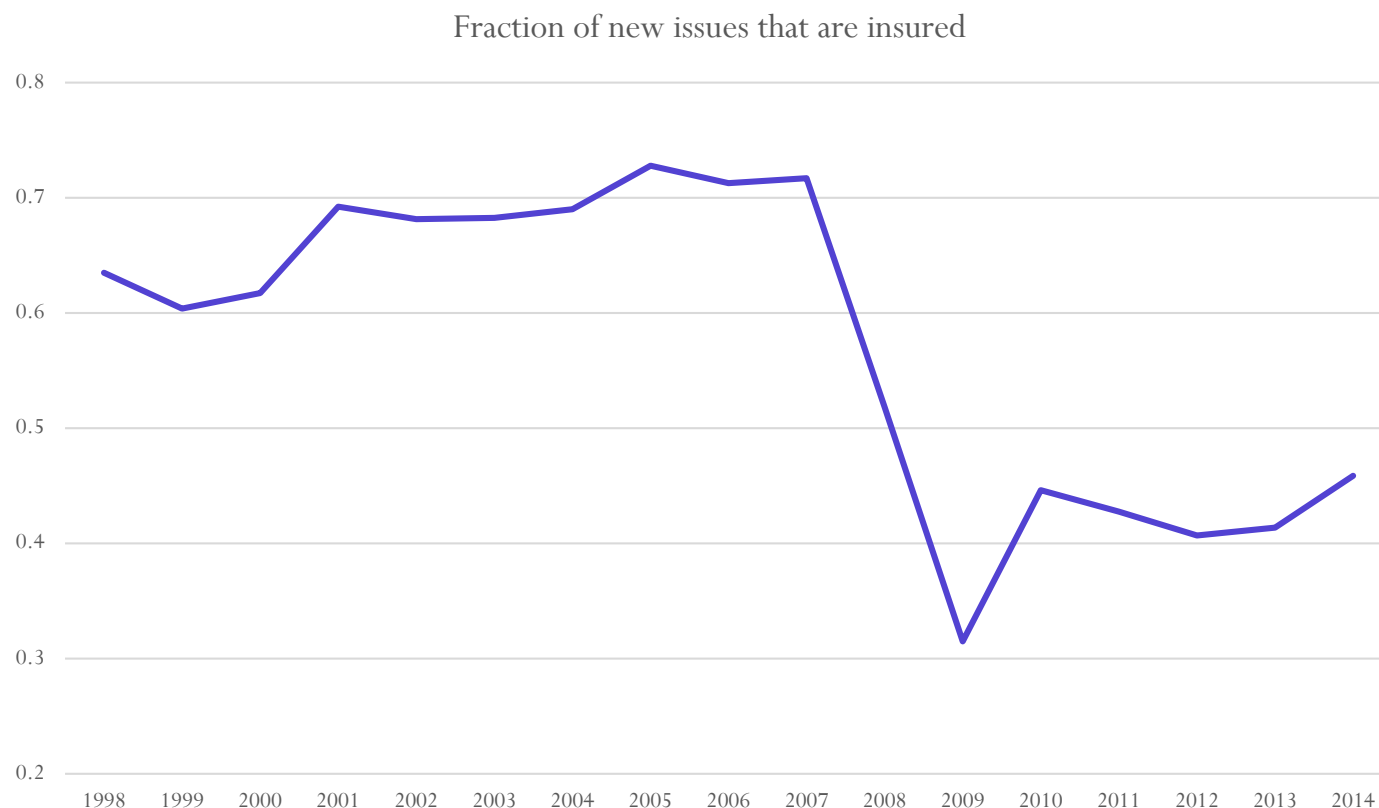
Municipal rating analysts spread thin; ratings correlate with fees.

Farmer's Branch, TX

Issue Date	May 7, 2013
Issue Size	$6.5 Million
Issue Security	Tax Backed

	Moody's		S&P
Rating Fee	$7,150	<	$12,000
Rating	Aa2	<	AA+

Frisco, TX

Issue Date	July 16, 2013
Issue Size	$6.5 Million
Issue Security	Tax Backed

	Moody's		S&P
Rating Fee	$13,600	>	$5,750
Rating	Aa1	>	AA

Google earth

Municipal ratings less subject to conflicts of interest.

- Muni ratings least lucrative asset class.

- Disclosure should mitigate conflicts. Texas mandates fee disclosure, by agency.

- Aaa is the plurality rating from both Moody's, S&P, & Fitch and is among the cheapest.
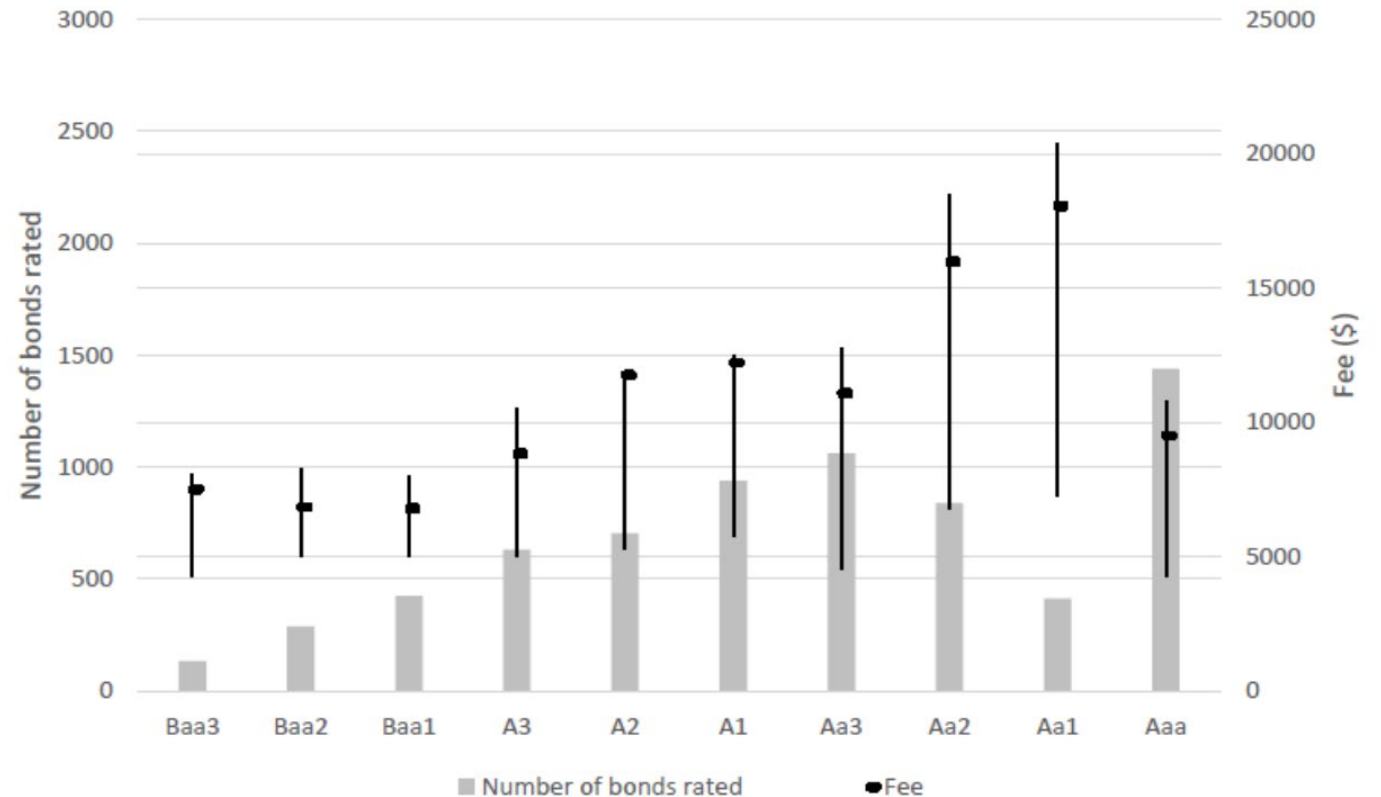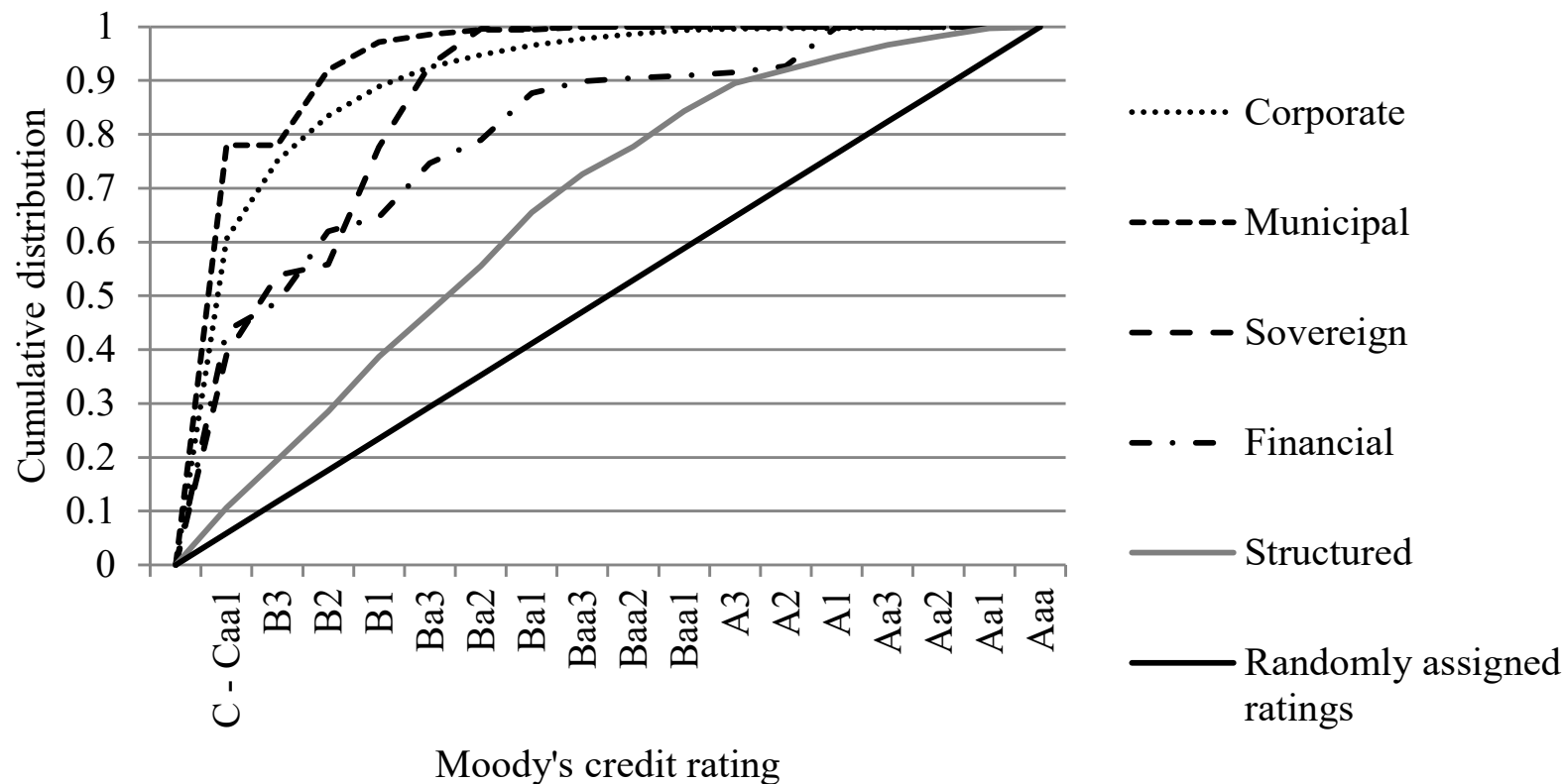
Municipal ratings more accurate than other asset classes.

Cumulative distributions of default: For each rating, divide the number of defaulting bonds by the number of bonds rated on January 1.

Accuracy ratios measure the area between this distribution and the diagonal line.

Municipal ratings subject to analyst home bias.

- Example: Bonds issued by the City of La Crosse, WI.
  - S&P analyst SSN: 390-XX-XXXX
    - 387-399 → Wisconsin
    - Bachelor's from Univ. of Wisconsin-Green Bay
    - S&P Rating: AA
  - Moody's analyst SSN issued in Washington, DC.
    - Moody's Rating: A1
  - AA is 2 notches above A1.

- Result robust in regression framework controlling for rating agency fixed effects and bond-month fixed effects.
  - CRA FE control for differences is rating standards and methodologies
  - Bond FE control for issuer fundamentals and issue characteristics.
  - Month FE control for credit market and macroeconomic conditions.

Conclusions

- Investors rely on credit ratings for information in the opaque muni bond market.
- Muni analysts subject to home bias, but muni ratings historically more accurate than other asset classes.
- Ratings correlated with fees likely reflect increased due diligence among formerly insured bonds.
- Credit rating fee disclosure improves transparency and mitigates conflicts of interest.
- Standardized CAFR reporting in machine-readable format may improve the informational efficiency of these markets.

References

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